## Claims

- 1. A welding apparatus for welding an element to a component, the apparatus comprising:
  - a) a hand held welding gun;
  - b) a welding gauge that is fixed to the component; and
  - c) a positioner attached to the gun;

wherein the positioner is calibrated to maintain a known distance between the element and the component, when the positioner is in physical contact with the gauge.

- 2. The apparatus of Claim 1, wherein the element is a metal stud and the component is a metal sheet.
- 3. The apparatus of Claim 2, wherein the metal stud and the metal sheet are parts of a motor vehicle.
- 4. The apparatus of Claim 1, further comprising an alignment feature in the welding gauge.
  - 5. The apparatus of Claim 4, wherein the alignment feature is a hole.
  - 6. The apparatus of Claim 5, wherein depth of the hole is adjustable.

- 7. The apparatus of Claim 4, wherein the alignment feature is a pin.
- 8. The apparatus of Claim 4, wherein the gauge has at least three alignment features.
- 9. The apparatus of Claim 8, wherein the alignment features are a combination of holes and pins.
- 10. The apparatus of Claim 4, wherein a positioner utilizes an alignment feature.
- 11. The apparatus of Claim 6, wherein a positioner is inserted into the hole.
- 12. The apparatus of Claim 8, further comprising at least three positioners.
- 13. The apparatus of Claim 12, wherein each positioner utilizes an alignment feature.
- 14. The apparatus of Claim 12, wherein the alignment features are placed in a triangle pattern around the element.

- 15. A welding system for joining a piece to a part, the system comprising:
  - a) a hand welder operably welding the piece to the part;
  - b) a holder operably holding the element relative to the part;
- c) a positioner offset behind the anterior end of the holder and being attached to the welder; and
- d) a welding gauge coupled to the part when the positioner is in contact with the gauge, the piece being a distance from the part.
- 16. The apparatus of Claim 15, wherein the piece is a metal stud and the part is a metal sheet.
- 17. The apparatus of Claim 16, wherein the metal stud and the metal sheet are parts of a motor vehicle.
- 18. The apparatus of Claim 15, further comprising an alignment feature in the welding gauge.
  - 19. The apparatus of Claim 18, wherein the alignment feature is a hole.
  - 20. The apparatus of Claim 19, wherein depth of the hole is adjustable.
  - 21. The apparatus of Claim 18, wherein the alignment feature is a pin.

- 22. The apparatus of Claim 18, wherein the gauge has at least three alignment features.
- 23. The apparatus of Claim 22, wherein the alignment features are a combination of holes and pins.
- 24. The apparatus of Claim 18, wherein a positioner utilizes an alignment feature.
- 25. The apparatus of Claim 20, wherein a positioner is inserted into the hole.
- 26. The apparatus of Claim 22, further comprising at least three positioners.
- 27. The apparatus of Claim 26, wherein each positioner utilizes an alignment feature.
- 28. The apparatus of Claim 26, wherein the alignment features are placed in a triangle pattern around the element.

- 29. A process including a welding gauge to weld an element to a component using a hand held welder, the process comprising:
  - a) attaching the welding gauge to the component;
  - b) holding the element in the welder;
  - c) setting the element a predetermined distance from the component;
  - d) welding the element to the component.
- 30. The process of Claim 29, wherein the element is a metal stud and the component is a metal sheet.
- 31. The process of Claim 30, wherein the metal stud and the metal sheet are parts of a motor vehicle.
- 32. The process of Claim 29, further comprising an alignment feature in the welding gauge.
  - 33. The process of Claim 32, wherein the alignment feature is a hole.
- 34. The process of Claim 33, further comprising adjusting the depth of the hole.
  - 35. The process of Claim 32, wherein the alignment feature is a pin.

- 36. The process of Claim 32, wherein the gauge has at least three alignment features.
- 37. The process of Claim 36, wherein the alignment features are a combination of holes and pins.
- 38. The process of Claim 32, wherein a positioner utilizes an alignment feature.
- 39. The process of Claim 34, wherein a positioner is inserted into the hole.
- 40. The process of Claim 36, further comprising at least three positioners.
- 41. The process of Claim 40, wherein each positioner utilizes an alignment feature.
- 42. The process of Claim 40, wherein the alignment features are placed in a triangle pattern around the element

43. The process of Claim 29, further comprising aligning the welding gauge on a feature of the component that is operable for alignment.